



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,288	01/14/2002	Arnold Wilkie	0818.0125C	5437
27896	7590	01/25/2005	EXAMINER	
EDEL, SHAPIRO, FINNAN & LYTLE, LLC 1901 RESEARCH BOULEVARD SUITE 400 ROCKVILLE, MD 20850			MAYES, MELVIN C	
			ART UNIT	PAPER NUMBER
			1734	

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/043,288

Applicant(s)

WILKIE ET AL.

Examiner

Melvin Curtis Mayes

Art Unit

1734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

(1)

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

(2)

Claims 7 and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gues et al. 5,814,349 in view of Berger 6,103,181

Gues et al. disclose a method of making a spun-bond web comprising: extruding thermoplastic strands from a spinneret; blowing process air from a blower onto the curtain of strands to cool the strands to form thermoplastic filaments (quenching by a gas stream in a quenching chamber); stretching the filaments in a vertical drawing channel by the process air (drawing in a drawing chamber); and depositing the filaments onto a continuous endless belt (forming surface) to form a spun-bond web of interentangled filaments (non-woven fibrous web). The apparatus is a closed system in which an enclosed environment is maintained between the spinneret, quenching chamber and drawing chamber (col. 1-5). Gues et al. do not disclose delivering a plurality of polymer streams from a spin beam assembly to the spinneret orifices, at least two of the streams including different polymer components.

Berger teaches that by producing a mixed fiber web of substantially complete uniformity, improved functional properties can be afforded in a variety of fibrous products. Berger teaches that for making a web of monocomponent fibers of different polymers or a web of multiple-component fibers, different polymer material from independent sources are fed through mutually

Art Unit: 1734

separated distribution paths of mounting blocks and distribution plates to an array of spinneret orifices to produce a uniform blend of fibers of differing characteristics. For making bicomponent fibers core-forming polymer and sheath-forming polymer are fed from independent sources through melt pumps to enter the die assembly. For making a homogenous web of two different polymers, two independent sources of polymer material are provided and fed through the die assembly, the polymer fed into the die assembly under different speeds so that the speed of extruding of the polymer material through alternate spinneret opening is different so as to be attenuated differently (col. 4, lines 32-54, col. 6, lines 18-47, col. 10, line 34 – col. 16, line 64).

It would have been obvious to one of ordinary skill in the art to have modified the method of Gues et al. for making a spun-bond web by delivering to the spinneret, different polymers, as taught by Berger, to make a mixed fiber web of substantially complete uniformity and improved functional properties. Making a web of either bicomponent fibers or of single fibers of two different polymers by supplying different polymers to the spinneret orifices via separated distribution paths in mounting blocks and distribution plates of the die assembly (spin beam assembly) would have been obvious to one of ordinary skill in the art, as taught by Berger for making a uniform mixed fiber web of improved function properties.

Delivering the polymers to the spinneret orifices as varying flow rates, as claimed in Claim 9, would have been obvious to one of ordinary skill in the art, as taught by Berger, to extrude the polymer materials at different speeds so as to attenuate the extruded polymer materials differently.

(3)

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 7 above, and further in view of Wust, Jr. 5,411,693 and Herwegh et al. 5,700,491.

Wust, Jr. teaches that in making multi-component fibers by spinning through a spinneret, first and second polymeric components are fed at first and second melt temperature, respectively, to the spin pack assembly for combining and extruding (col. 3, lines 32-46).

Herwegh et al. teach that the melt lines for advancing molten plastic in a spin beam for spinning a plurality of synthetic filament yarns are heated by a heating medium (col. 3, lines 5-8).

It would have been obvious to one of ordinary skill in the art to have modified the method of the references as combined by directing the different polymers to the die assembly (spin beam assembly) from the melt pumps via lines heated at different temperatures, as Wust, Jr. teaches that making multi-component fibers by spinning through a spinneret, first and second polymeric components are fed at first and second melt temperature, respectively, to the spin pack assembly for extruding, and Herwegh teach that the melt lines for advancing molten plastic in a spin beam are heated by a heating medium. By advancing the different molten polymeric components to the spin beam assembly by melt lines heated to different temperatures, polymer streams of different polymers are obviously segregated into a plurality of manifolds (melt lines) maintained at different temperatures, as claimed.

Response to Amendment

(4)

The Declaration filed on October 20, 2004 under 37 CFR 1.131 is sufficient to overcome the Taylor 2002/0063364 reference.

Conclusion

(5)

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Balk 6,120,276 discloses feeding different thermoplastic resin to a spinneret for making bicomponent filaments.

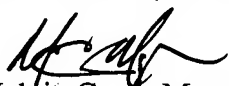
(6)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvin Curtis Mayes whose telephone number is 571-272-1234. The examiner can normally be reached on Mon-Fri 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla can be reached on 571-272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1734

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Melvin Curtis Mayes
Primary Examiner
Art Unit 1734

MCM
January 21, 2005